



Exploration of Stunting Events as an Effort to Prevent Stunting in Bangkalan Regency

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Abstract

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BACKGROUND: The result of Health Research (Riskesdas) in 2018 showed a decrease in the prevalence of stunting at the national average of 6.4% over a period of 5 years, that is, from 37.2% (2013) to 30.8% (2018). The prevalence of stunting in children under five in Bangkalan was the highest in East Java. Data on the Nutrition Status Monitoring of East Java in 2015 showed that the prevalence of stunting in Bangkalan reached 53.2%; consisting of 27.4% of severely stunted children and 25.8% of stunted children.

AIM: This study determined factors that influenced the stunting prevalence in the Bangkalan Regency.

METHODS: The method of this study was exploratory qualitative research that determined dominant factors influencing the stunting prevalence in Bangkalan Regency and developed a theme analysis instrument. Data were collected through interviews done with 12 health workers in charge of stunting eradication programs.

RESULTS: The results and discussions showed that stunting prevalence in Bangkalan Regency remained high that it requires a thorough study to determine the factors influencing it. Results of this study showed that cultural factors shaped how local community in Bangkalan Regency viewed maternity care and parenting styles. From the FGD analysis, stunting programs such as the 1000 first days of life program have been implemented, yet cross-community collaboration was not yet established. It also requires a synergy among health agencies, education agencies, and villages to include contents about stunting eradication programs in all public activities.

CONCLUSION: Suggestions were proposed regarding the need to emphasize the importance of cross-sectoral and cross-program cooperation in controlling and reducing the stunting rate. Midwives as officials of Posyandu (Regular Health Care) need to improve the coordination with the local community and emphasize the promotion of stunting eradication programs.

Introduction

Stunting in children under five describes a chronic nutritional problem that is affected by mother's health condition, fetal period, and infancy/toddler period, including diseases suffered during infancy. Stunting reflects malnutrition and mothers' height inherited to the baby which then affects baby's birth length. Stunting in children under five is a major indicator assessing children's well-being and it is an accurate reflection of social inequality. Stunting mostly occurs due to inadequate nutrition and recurrent infections in the first 1000 days of life [23].

There were 113 malnourished children under five in 2018, which number has decreased by 129 from 242 in 2017. This high rate of malnutrition in Bangkalan Regency showed low awareness regarding the importance of nutrients in food. People often eat food to make them full, without carefully considering the nutrients in the food [9].

Stunting is failure to thrive due to the accumulation of nutritional deficiencies that last a long time from pregnancy to 24 months of age.

Therefore, this condition can affect the overall growth and development of children. The short-term impact of stunting is disruption of brain development, intelligence, disturbances in physical growth, and metabolic disorders. The long-term impact, stunting that is not handled properly as early as possible, has an impact on: Reduce the cognitive development ability of the child's brain, weak immune system so it's easy to get sick, and high risk of metabolic diseases such as obesity, heart disease, vascular disease, and difficulty learning.

In fact, when they grow up, children with short bodies will have low levels of productivity and find it difficult to compete in the world of work. For girls who are stunted, they are at risk for developing health and development problems in their offspring when they are adults. This usually occurs in adult women with a height of <145 cm due to experiencing stunting since childhood. Pregnant women with below average stature (maternal stunting) will experience a slowdown in blood flow to the fetus and the growth of the uterus and placenta. It is not impossible, this condition has an impact on the condition of the baby being born. Babies born to mothers with below-average height are at risk of serious medical complications, even stunted growth.

The development of the baby's nerves and intellectual abilities can be hampered accompanied by the child's height not according to age. Just like stunting that has been going on since childhood, babies with this condition will also continue to experience the same thing until they grow up.

Methods

This qualitative research determined the dominant factors that influence stunting prevalence in Bangkalan Regency to create an instrument for the analysis of stunting prevention programs. The method of this study was exploratory qualitative research that determined dominant factors influencing the stunting prevalence in Bangkalan Regency and developed a theme analysis instrument. Data were collected through interviews done with 12 health workers in charge of stunting eradication programs.

Results

Stunting is one of the most common nutritional problems in Indonesia. PPN/BAPENNAS 2017 reported that stunting rate in Bangkalan Regency reached 43.21%, where Kwanyar District occupies a high level with 152 children with stunting condition [9]. Stunting is multifactorial, where socio-cultural factors are major factors influencing it as it forms the parenting style. In-depth study examining the Stunting phenomenon in Bangkalan Regency is considered necessary.

For Tanah Merah Public Health Care, there were 20 babies under 2 years old, and 40 toddlers aged between 2 and 5 years old, out of which 60 children were stunted. Modung Bulan Health Care found 161 children with stunting, where 42 were severely stunted and 116 were stunted. The data were collected from nine villages with 1305–1719 toddlers (0–59 months old). Galis Health Care that covered 11 villages found stunting cases in Desa Telok and Lantek Timur. Telok and Lantek Timur were villages with the most number of children with stunting, reaching 30 cases. In addition, new cases of stunting were found every year.

The Health Department of Bangkalan Regency set a target to decrease the stunting prevalence by 5%. At present, there were 3.946 children in Bangkalan who were stunted, reaching to 7%. The percentage was obtained from data of 45.678 toddlers in Bangkalan in 2020 [9].

Data and results of interviews show severe stunting phenomenon in Bangkalan Regency that

it is necessary to determine factors causing it. Stunting problem in Bangkalan Regency occurs due to misconceptions in community. The community mistakenly thinks that consuming fish would make children get worms and consuming vegetables, for example, if you consume a lot of fish, your child will get worms, for consumption of vegetables would trigger diarrhea.

Tanah Merah, a district with the largest working area covering 23 villages, found that the most common factor of stunting include is the weak awareness of the 1000 days of first life. A lot of mothers still believed in myths, and they had inadequate comprehension about nutritional needs and health behavior. They still believed that taking iron supplements can make the baby grow big, increase the blood pressure. In addition, access to water resources was <15% of the target, limited distribution of additional nutritional food for toddlers and pregnant women, avoidance against fish due to myths, strong trust to shamans, and traditional massage, inadequate nutritional intake as they also believed that it is better to sell eggs of their own hens than to eat them themselves. Furthermore, most of the communities work as labor, helpers. Besides, their babies of lack of nutritional intake, babies not exclusively breastfed for 6 months, and given complementary food before 6 months. Based on the interview, perceptions, myths, inappropriate targets, culture/belief in traditional healers, and lack of nutrition and knowledge might be dominant factors that cause stunting.

The results showed that the cultural factors form an inherent view of pregnancy care and parenting of children under five. Wrong food ideology where people only rely on natural food ingredients also affects the stunting case in Indonesia. Shamans still play an important role in providing pregnancy treatment which affects pregnancy care and parenting style that lead to stunting [1], [14].

Such complex misconception gets worse as there is a term called food taboo and food ideology that lead to inadequate nutrition intake. Therefore, it is necessary to apply certain social approach and social engineering to change the mind of the community, especially mothers of toddlers [2]. The researchers hope that in the future, they can build a multisectoral integration to provide stronger campaign related to stunting. In addition, it is necessary to empower and equip shamans with right health education as agents of change [13], [10].

Some programs have been running to reduce stunting rate including regular posyandu or health services for mothers and children, reinforcement of the 1000 first days of life, pregnancy monitoring services to evaluate fetal growth and development, counseling on the importance of balanced nutrition, and length measurement [3]. The prevention against stunting has been also carried out including iron supplementation for adolescents, integrated

antenatal care, pregnancy counseling, provision of supplementary food for pregnant women, and toddlers every month. Counseling has been done during height measuring and weighing. Stunted toddlers also have their nutrition status monitored. Supports for 1000 FYL during pregnancy include integrated mother and baby antenatal care, pregnancy class, folic acid supplementation, iron supplementation, and special supplementation for malnourished pregnant women, exclusive breastfeeding counseling. The subtheme of stunting eradication programs includes health-care services, adolescence care, integrated antenatal care, KIE, and ways to improve the 1000 FYL.

Community empowerment is an effort or process to raise awareness, willingness, and ability of the community to recognize, overcome, maintain, protect, and improve their own welfare. The community empowerment movement is an effort to grow and develop habits that make people able to behave in a clean and healthy life. The meeting to increase community empowerment aims to produce: There is a village policy to accelerate stunting reduction and improve nutrition, the existence of interpersonal communication channels to facilitate coordination in the context of stunting prevention, youth as the driving force that connects institutions, mass organizations, community groups, the business world, and related sectors to work together to prevent stunting, and concern and synergy from all related sectors are expected to reduce stunting incidence and improve public health status.

Stunting eradication program provides *posyandu* services by providing IEC, counseling for 1000 days of life, pregnancy examination to monitor fetal growth and development, counseling on the importance of balanced nutrition, and TB measurement, supplementation for adolescents. The integrated ANC includes pregnancy counseling, supplementary feeding for pregnant women and toddlers every month.

Stunting eradication programs still need to be continuously carried out. It is also necessary to standardize the height measurements to obtain valid data. The program has also been conducted in Islamic boarding schools and the community. Health-care officials also have to conduct training for midwives and health workers on how to identify stunting earlier. The success of this program requires public awareness in reducing the incidence of stunting not only in the health sector but also in all sectors. The government in this case requires all lines to participate to support the community movement to prevent stunting from occurring.

Strengthening cross-sectoral roles in the context of sensitive and specific interventions supported by capacity building of central, provincial, and district/city governments in implementing plans food and nutrition action. Specific nutrition interventions are activities that directly address the occurrence of stunting, such as food intake food, infection, maternal nutritional status, infectious diseases, and environmental health [11].

These specific interventions generally provided by the health sector. Sensitive nutrition interventions include: (a) Increasing the provision of clean water and sanitation facilities; (b) increase access and quality of nutrition and health services; (c) raising awareness, commitment, and practice of parenting maternal and child nutrition; and (d) increasing access to nutritious food. Sensitive nutrition interventions are generally implemented outside the Ministry of Health. The targets of sensitive nutrition interventions are families and communities and are carried out through various programs and activities.

FGD analysis

The Focus Group Discussion was held on Thursday, September 23, 2021, regarding the analysis of Stunting Prevalence in Bangkalan Regency attended by 12 participants consisting of the Head of the Health Center, Bangkalan District Health Office, IBI and Head of KIA. The discussion resulted in a fact that the reinforcement of 1000 FYL program has been running, yet it lacked of cross-community collaboration between the government and regional central health agencies, and with other educational institutions. All social events should also include campaigns to reduce stunting rate.

Proposed recommendations to stunting prevention program

Based on the results of Focus Group Discussion (FGD) analysis, it is recommended to enhance the synergy between the Central Government and local governments in stunting prevention, enhancement of the 1000 FYL in the community, and strong human resource commitment in the implementation of stunting prevention in all sectors.

Discussion

According to the UNICEF, stunting in 2019 impacted 149 million children under five globally. Stunting brings negative impacts throughout toddlers' life, including disruption in brain development, intelligence, impaired physical growth, and metabolic disorders in the short term. Stunting can also bring long-term impacts including lower cognitive abilities and learning achievement, weak immune system that makes toddlers vulnerable to get diseases, and they are at high risk of diabetes, obesity, heart and blood vessel disease, cancer, stroke, and disability when they grow old [15]. Furthermore, stunting also leads to uncompetitive work quality which results in low economic productivity. Among women, stunting is also affected by age of baby delivery and the number of pregnancies and children.

Development during adolescence greatly determines one's quality as an adult individual. Nutritional inadequacy during adolescence will increase susceptibility to disease in adulthood and brings higher risk of giving birth to a generation with nutritional problems [6]. Adolescent girls who suffer from anemia might experience anemia problems during pregnancy and inadequate protein level, making them vulnerable to giving birth to a low birth weight (LBW), babies with stunting condition by birth, complications during delivery, and other pregnancy-related risks [1].

Efforts have been conducted by health workers at the Bangkalan Health Center in preventing stunting, including regular health service for toddlers every month that includes free immunizations, deworming drugs, supply of biscuits as additional nutrition for children, and health education. In addition, Aged *et al.* (2018) found that inappropriate breastfeeding practices were associated with stunting, in which failure to exclusively breastfeed during the first 6 months appeared as a significant risk factor ($p = 0.033$) to stunting. Effective breastfeeding also depends on nursing position. Proper latch during breastfeeding allows effective suckling process that facilitates the production and release of breast milk thereby increasing the duration of breastfeeding. Correct nursing position will provide babies with adequate nutrition, decreasing the risk of stunting [10].

Narendra (2017) and Firdhani (2015) stated that cultural values and lifestyle are factors that relate to a person's behavior, including how a person fulfills children's nutrition adequacy. Leininger in his theory of transcultural nursing (2002) stated that culture is a complex whole of knowledge, belief, art, morals, law, customs, other capabilities, and habits acquired by humans as a society. Habits that are formed based on culture can affect one's nutritional status [4], [22], [26].

In the context of this study, the community has misconceptions such as giving coconut water to newborns to make babies healthy and strong, giving banana smoothies babies under the age of 6 months to make them less fussy, and belief that it is good for babies to eat more rice than protein sources. In line with this view, Hidayat *et al.* (2013) found that Madurese put more rice and fewer types of vegetables and very rarely consuming eggs, milk, and meat for baby food. The term lotek, made, and ro'moro' which refer to the habit of giving coconut water to newborns to make children grow bigger and stronger quickly. Many of them also avoid giving colostrum to their babies because they thought that it is not good for their babies. Even more mothers stopped breastfeeding their babies before the age of two because they thought that their babies did not need breast milk anymore [23].

As explained in this study, cultural values shared among the community being discussed in this study are not supportive to the fulfillment of adequate nutrition [24], [19]. Many parents even perform wrong parenting because they comply with their elders'

advice even though the advice is rather detrimental to health. Respondents believed that elderlies are more experienced in taking care of children. These misconceptions make the prevention of stunting challenging. Cultural negotiation is a proper intervention to help new mothers gain valid knowledge regarding to health and parenting [10].

Political and legal factors issued by the government support the provision of specific nutrition interventions to prevent stunting. There are no customary rules, customary policies, or norms that prohibit the provision of specific nutrition interventions. However, there are also no customary policies, customary rules, and norms issued by community leaders that support the provision of specific nutrition interventions as an effort to prevent stunting [27].

Each family member plays multiple roles in the family as a motivator, educator, and facilitator. Husbands also need to facilitate their wives in providing food to their children [9]. In this study, members who in this study, grandparents brought significant specific nutrition interventions because grandparents are considered well-experienced in performing child care. Laura *et al.*, (2016), stated that social support bounds to the habits, customs, and beliefs of families and communities in the area affect the effort in fulfilling specific nutritional interventions to this problem. Respondents have strong family support, but they lack of specific nutrition interventions [7], [19], [20]. Researchers assume that this is because all forms of infant care tradition. Family's habits, customs, and beliefs of the respondents in this study appeared to be detrimental to specific nutritional interventions [8]. Social and family factors were found non-supportive. The community still start giving their babies food before the age of 6 months such as spoon feeding their children with giving bananas, coconut water, refined rice made children fuller, healthier, and less fussy [21].

Conclusion

Suggestions were proposed regarding the need to emphasize the importance of cross-sectoral and cross-program cooperation in controlling and reducing the stunting rate. Midwives as officials of Posyandu (Regular Health Care) need to improve the coordination with the local community and emphasize the promotion of stunting eradication programs.

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